

CLAIMS

1. A wireless bi-directional portable patient monitor comprising:
 - a communication interface to receive patient data from a wireless local area network (WLAN) within a medical care facility and transmit care parameters as needed to the WLAN in response thereto;
 - 5 a processor connected to the communication interface to process the patient data and the care parameters;
 - a display connected to the processor to display the processed patient data in human discernable form; and
 - 10 an input device connected to the processor to allow a change in the care parameters by a health care provider.
2. The portable patient monitor of claim 1 wherein the processor decodes the patient data to process and display the patient data and encodes the care parameters to transmit the care parameters to the WLAN.
3. The portable patient monitor of claim 1 wherein the portable patient monitor is a primary monitoring device.
4. The portable patient monitor of claim 1 wherein the processor processes the patient data to display ECG and vital sign data for a selected patient.
5. The portable patient monitor of claim 1 wherein the communication interface is compatible with an existing WLAN.

6. The portable patient monitor of claim 1 wherein the portable patient monitor is packaged within a housing that is transportable on a health care provider for extended periods.

7. The portable patient monitor of claim 6 having a length of approximately 7" (17.8 cm), a width of approximately 3.75" (9.5 cm), and a thickness of approximately 1.0" (2.54 cm).

8. The portable patient monitor of claim 1 wherein the processor is programmed to allow alarm silencing of a bedside monitor, and admit and discharge patients.

9. The portable patient monitor of claim 1 wherein the processor is programmed to allow adjustment of alarm parameter violation limits.

10. The portable patient monitor of claim 1 further comprising a speaker and microphone, and wherein the processor is programmed to process data to permit voice-over-internet protocol (IP) transfer.

11. The portable patient monitor of claim 1 further comprising a bar code scanning module and a bar code scanner, and wherein the processor is programmed to receive and compare patient data with data obtainable from a centralized database that

includes pharmaceutical and patient bar codes to ensure dosage accuracy, and doctor
5 orders.

12. The portable patient monitor of claim 1 wherein the processor is
further programmed to interface with non-proprietary networked systems.

13. The portable patient monitor of claim 12 wherein the processor is
further programmed to interface with infusion pumps and ventilators.

14. The portable patient monitor of claim 1 wherein the processor is
further programmed to receive patient reports and diagnostic analyses prepared at
other locations in the medical care facility to provide the health care provider with the
patient reports and diagnostic analyses in real time.

15. The portable patient monitor of claim 1 further comprising a PDA
module to provide PDA functions to the health care providers.

16. The portable patient monitor of claim 15 wherein the PDA functions
include a scheduler, reminders, to-do lists, and other PDA functions.

17. The portable patient monitor of claim 1 further comprising a
microphone and a digital audio recorder module to input a record of patient medical
events by the health care provider.

18. A mobile clinical information management system to decentralize patient monitoring comprising:

- 10 a portable patient monitor having a processor connected to a communication interface to receive and process patient data and to process and transmit care parameters, a display to display the patient data, and an input device to change the patient care parameters, the portable patient monitor having a configuration to allow wireless transport on a health care provider for extended periods;
- 15 a plurality of bedside patient monitors to connect to a plurality of patients and transmit patient data;
- 16 a WLAN coupled to the plurality of bedside patient monitors and the portable patient monitor.

19. The system of claim 18 further comprising a plurality of portable patient monitors, each portable patient monitor assigned to a given number of patients.

20. The system of claim 18 wherein the processor further:
decodes the patient data to process and display the patient data and
encodes the care parameters to transmit the care parameters to the WLAN; and
processes the patient data to display ECG and vital sign data for a
5 selected patient on the portable patient monitor.

21. The system of claim 18 wherein the portable patient monitor is a primary monitoring device and wherein a communication interface of the portable patient monitor is compatible with an existing WLAN.

22. The system of claim 18 wherein portable patient monitor has a length of approximately 7" (17.8 cm), a width of approximately 3.75" (9.5 cm), and a thickness of approximately 1.0" (2.54 cm).

23. The system of claim 18 further comprising a speaker and microphone, and wherein the processor is programmed to:
allow alarm silencing of a bedside monitor;
admit and discharge patients;
5 adjust alarm parameter violation limits; and
process data to permit voice-over-internet protocol (IP) transfer.

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24. The system of claim 18 further comprising:
a bar code scanning module and a bar code scanner and wherein the
processor is programmed to receive patient data encoded in a patient wristband, and to
compare patient data with data obtainable from pharmaceutical bar codes and a
5 centralized database to check dosage accuracy and compliance with doctor orders;

wherein the processor is further programmed to interface with infusion
pumps and ventilators, and to receive patient reports and diagnostic analyses prepared
at remote locations in the medical care facility to provide the health care provider with
the patient reports and diagnostic analyses in real time.

25. The system of claim 18 wherein the portable patient monitor includes a
PDA module having PDA functions that include a scheduler, reminders, and to-do
lists, and further comprises a microphone and a digital audio recorder module to
record an audio input by the health care provider into the microphone and record
5 patient medical events.

26. A computer program residing in memory of a portable patient monitor to cause a processor to:

remotely interface to a WLAN to acquire any patient alarms;

sound an alarm if a patient alarm occurs;

5 allow user silencing of the alarm at the portable patient monitor and at a bedside monitor; and

display patient data.

27. The computer program of claim 26 wherein the computer program further causes the processor to:

periodically check a recharged battery charge; and

display a warning if the rechargeable battery charge is low.

28. The computer program of claim 26 wherein the computer program further causes the processor to allow user adjustment of alarm parameter violation limits.

29. The computer program of claim 26 wherein the computer program further causes the processor to relay patient admission and discharge information to the WLAN.

30. The computer program of claim 26 wherein the computer program further causes the processor to process audio data from a health care provider to record medical history of a patient.

31. The computer program of claim 26 wherein the computer program further causes the processor to scan a bar code from a patient ID and compare data obtained therefrom with data on the patient from a main patient database to ensure proper medical treatment.

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